DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
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IN REPLY REFER TO
11132
EICO/vrd
2 Nov 01

From: Commander, Naval Facilities Engineering Command

Subj: ITG 02-01, INTERIM TECHNICAL GUIDANCE "AIRFIELD PAVEMENT AND AIRFIELD UTILILTY DESIGNS"

Ref: (a) NAVFACENGCOM ltr 0451/MPJ of 5 Aug 77
(b) NAVFACENGCOM ltr 04B/04B1/MPJ Ser 85-138 of Mar 85
(c) NAVFACENGCOM ltr of 31 Dec 98 "Design and Construction Oversight Policy for NAVFAC Construction Work"

Encl: (1) Naval Facilities Engineering Command Airfield Pavements Users Group

1. Purpose. Establish policy and procedures to ensure the safety and technical quality of airfield pavement and airfield utility projects. This instruction applies to all fund sources. It formalizes and reissues the content of references (a) and (b).

2. Background. The design of new or repair projects for airfield pavements and airfield utilities (i.e., asphaltic concrete, Portland cement concrete, and utility appurtenances, such as manholes, catch basins, vaults, pits within the pavement and clearance zone areas) are specialties which require the cumulative experience of pavement engineering. Problems in the past that have required corrective actions have included inadequate concrete joint designs, improper material specification, inadequate design of pavement vertical alignment and transition pavements, improper placement of crack retarding inner layers, improper structural design of catch basin grates and spall repairs, raised manholes and valve pits within the taxiway shoulder violating obstruction criteria, and poor quality control for mix designs and compaction.

3. Discussion. To ensure maximum safety, pavement and utility designs for airfields are type I construction, as defined in reference (c). Therefore, these designs require review by appropriate specialists normally available at the Engineering Field Divisions (EFDs). All airfield pavement designs should be reviewed by an EFD airfield pavement specialist or by a registered professional engineer who is experienced in airfield pavement design; so that safe, high quality and geometrically correct airfield surfaces are maintained. Otherwise, construction contracts may be prepared that do not conform to criteria, guidance, or good practice, resulting in some of the aforementioned problems. Additionally during construction, OICC/ROICC personnel frequently require engineering support to ensure that project requirements are met and criteria are not violated when executing change orders.

4. Action.

a. All Activities and Public Works Centers (PWCs) should ensure that designs for airfield projects are submitted for technical review and approval by the EFD airfield pavement

specialist prior to bid solicitation The technical effort may require financial reimbursement if review time exceeds normal consultation services. Technical support is also available from the Naval Facilities Engineering Service Center on a reimbursable basis. Enclosure (1) contains the cognizant EFD and NFESC points of contact.

b. At the pre-final stage the activity or PWC should provide review packages including design plans, specifications, basis for design and the engineering computations to the EFD. Complete plans and specifications (100%) should also be submitted to EFD airfield pavement specialist for continued update of the construction history database. Submit plans and specifications in electronic format in accordance with individual EFD policy for computer-generated submittals.

c. Technical questions concerning the design materials, or applications arising during the bidding process or construction phase may be directed to the EFD.

d. ROICC and OICC shall ensure that technical reviews outlined above have occurred prior to Project advertisement.

5. Coordination. This ITG has been coordinated with NAVFACENGCOM, PWC, CHENG and NFESC.

6. Points of Contact.

a. For clarification or additional technical information related to this subject, please contact Mr. Vincent R. Donnally, P.E., at the NAVFAC Engineering Innovation and Criteria Office (EICO). Mr. Donnally can be reached at 757-322-4212, or e-mail donnallyvr@efdlant.navfac.navy.mil.

b , For clarification or additional information related to airfield pavement design and maintenance, please contact Dr. Javier Malvar, NFESC Pavement consultant and Technical Discipline Leader. Dr. Malvar can be reached at 805-982-1447, or Malvarlj@nfesc.navy.mil

c. For additional information see http://criteria.navfac.navy.mil/criteria and http://navfacilitator.navfac.navy.mil/cheng/enet/tdls/pavement.cfm.

Dr. Malvar's correct title is NAVFAC Pavement Technical Discipline Leader

DR. GET W. MOY, P. E.
Chief Engineer

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NAVAL FACILITIES ENGINEERING COMMAND
AIRFIELD PAVEMENTS USERS GROUP

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Enclosure (1)